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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950

October 15, 2007

Ms. Shirley J. Olinger, Acting Manager  
Office of River Protection  
United States Department of Energy  
P.O. Box 450, MSIN: H6-60  
Richland, Washington 99352

Mr. William S. Elkins, Project Director  
Bechtel National, Inc.  
2435 Stevens Center Place, MSIN: H4-02  
Richland, Washington 99354

Re: Submittal of Hanford Facility RCRA Permit Modification Notification Form  
24590-LAW-PCN-ENV-06-015; Class <sup>1</sup>1 Modification to the Hanford Facility Dangerous  
Waste and Resource Conservation and Recovery Act (RCRA) Permit for the Treatment,  
Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10  
(Waste Treatment and Immobilization Plant), WA7890008967

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Dear Ms. Olinger and Mr. Elkins:

The Department of Ecology approves the referenced Class <sup>1</sup>1 Modification submitted September 25, 2007. The approved Hanford Facility RCRA Permit Modification Notification Form is enclosed.

Modification 24590-LAW-PCN-ENV-06-015 provides the following updated Piping and Instrumentation Diagrams for the Low Activity Waste Radioactive Liquid Waste Disposal System:

- 24590-LAW-M6-RLD-P0001, Revision 3.
- 24590-LAW-M6-RLD-P0002, Revision 3.
- 24590-LAW-M6-RLD-P0003, Revision 3.

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Ms. Olinger and Mr. Elkins

October 15, 2007

Page 2

The parties agree that during the transition period from permit drawings to engineering source drawings, items not requiring an installation inspection or inclusion in the Independent Qualified Registered Professional Engineer report may be shown in phantom. Ecology is approving the design changes identified in the Permittees' submittal. However, decisions regarding the regulation of items shown in phantom will be made at a later date. At the end of the transition period, permit submittals will contain engineering source documents and will be incorporated into the permit as described in Ecology Publication # 07-05-006 ([www.ecy.wa.gov/biblio/nwp.html](http://www.ecy.wa.gov/biblio/nwp.html)).

If there are any questions, contact me at 509-372-7882 or Tracy Gao at 509-372-7901.

Sincerely,



Brenda Becker-Khaleel  
WTP Permit Writer  
Nuclear Waste Program

aah/jc

Enclosure

cc electronic w/enc:

John Eschenberg, USDOE  
Lori Huffman, USDOE  
Tony McKarns, USDOE  
Gae Neath, USDOE  
Don Sommer, USDOE  
William Taylor, USDOE  
Brad Erlandson, BNI  
Peggy Fisher, BNI  
Stan Hill, BNI  
Dennis Klein, BNI  
Sandi Murdock, BN  
Suzette Thompson, FHI  
Phil Peistrup, WGI

cc w/enc:

Administrative Record: Tank Waste Treatment Requirements ✓  
Environmental Portal  
USDOE-ORP Correspondence Control

4-0-8

Quarter Ending September 30,  
2007

24590-LAW-PCN-ENV-06-015



**Hanford Facility RCRA Permit Modification Notification Form****Part III, Operating Unit 10****Waste Treatment and Immobilization Plant**

## Index

Page 2 of 3: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant  
Update LAW Vitrification Building Piping and Instrumentation Diagrams (P&ID) for the LAW Radioactive Liquid Waste Disposal System Plant Wash & SBS Condensate Collection and the LAW Radioactive Liquid Waste Disposal System (24590-LAW-M6-RLD-P0001); the LAW Radioactive Liquid Waste Disposal System C3/C5 Drains/Sump Collection (24590-LAW-M6-RLD-P0002); and the LAW Radioactive Liquid Waste Disposal System C3/C5 Floor Drains Collection (24590-LAW-M6-RLD-P0003); in Appendix 9.2 of the Dangerous Waste Permit

Submitted by Co-Operator:

Reviewed by ORP Program Office:

  
D. A. Klein  
Date  
S. J. Olinger  
Date

Quarter Ending September 30,  
2007

24590-LAW-PCN-ENV-06-015

### Hanford Facility RCRA Permit Modification Notification Form

Unit:

**Waste Treatment and Immobilization Plant**

Permit Part & Chapter:

**Part III, Operating Unit 10**

#### Description of Modification:

The purpose of this Class 1 prime modification is to update the following Piping and Instrumentation Diagrams (P&IDs) for the LAW Radioactive Liquid Waste Disposal System (24590-LAW-M6-RLD-P0001, 24590-LAW-M6-RLD-P0002, and 24590-LAW-M6-RLD-P0003). The following permit P&IDs are submitted to replace those currently in Appendix 9.2.

Appendix 9.2			
Replace:	24590-LAW-M6-RLD-P0001, Rev. 2	With:	24590-LAW-M6-RLD-P0001, Rev. 3
	24590-LAW-M6-RLD-P0002, Rev. 2		24590-LAW-M6-RLD-P0002, Rev. 3
	24590-LAW-M6-RLD-P0003, Rev. 2		24590-LAW-M6-RLD-P0003, Rev. 3

The referenced P&IDs are complete revisions. They incorporate changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) and changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted drawing. This modification requests Ecology approval and incorporation into the permit. Revisions are the result of ongoing design changes. The following identifies the significant types of changes on the attached drawings.

#### 24590-LAW-M6-RLD-P0001

The DCNs and other changes associated with P&ID 24590-LAW-M6-LCP-P0001 are provided in drawing Note 32.

- Added slope notation to specific lines
- Revised and added new notes
- Modified electrical signal between pump motor and current indicator with software link connection
- Changed quality designator of drawing from CM to Q and added quality designators at various locations
- Added mag-flow meters and associated instruments
- Changed DIW check valves on the outside of RLD Buldge-00004 from AL6XN to 316L stainless steel
- Added various seismic designators
- Changed the location of system designators on several valves
- Changed various off-sheet connectors

#### 24590-LAW-M6-RLD-P0002

The DCNs and other changes associated with P&ID 24590-LAW-M6-LCP-P0001 are provided in drawing Note 40.

- Added slope notation to specific lines
- Deleted references to pour cave sumps SUMP-00006, RLD-SUMP-00039 at coordinate A5, RLD-SUMP-00007 and RLD-SUMP-00038 at coordinate A6, and RLD-SUMP-00008 and RLD-SUMP-00037 at coordinate A7
- Deleted RLD-PMP-00017 and RLD-PMP-00024, and moved RLD-PMP-00016 to RLD-SUMP-00011
- Changed spray nozzle designations on cell rinse to "SP"
- Revised various inline piping flanges and valves, renumbered various lines, modified piping configuration to match physical layout
- Combined pour cave discharge lines (RLD-ZF-01646-S11B-1-1/2 and RLD-ZF-00099-S11B-1-1/2, and RLD-ZF-01647-S11B-1-1/2 and RLD-ZF-00098-S11B-1-1/2) and added slope prior to tying into sump pump discharge header RLD-ZF-00095-S11B-04 at Coordinate C6/C7

Quarter Ending September 30,  
2007

24590-LAW-PCN-ENV-06-015

- Modified electrical signal between pump motor and indicator for pumps RLD-PMP-00002A and B at coordinate E3
- Revised and added new notes
- Changed quality designator of drawing from CM to Q
- Revised various off-sheet connector descriptions such as ASX sample lines

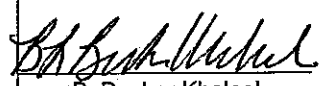
#### 24590-LAW-M6-RLD-P0003

The DCNs associated with changes to P&ID 24590-LAW-M6-LCP-P0001 are provided in drawing Note 24

- Added slope notation to specific lines
- Extended RLD line RLD-WU-22117-S11B-02 at coordinate G 8 to tie into RLD line RLD-WU-00108-S11B-06 that drains to RLD vessel 00004 at coordinate E 7
- Changed tie-in of LAW floor drains RLD-FD-00014 and RLD-FD-00015 to tie into RLD line RLD-WU-00109-S11B-06-02 at coordinate G7
- Change the depth of process cell sumps RLD-SUMP-00029/00030/00031/00032/00033/00034/00035/00036 from 15 inches to 12 inches to reflect the as-built condition per drawing 24590-LAW-DD-S13T-00014, Rev. 5
- Revise the description of process cell sumps RLD-SUMP-00029/00030/00031/00032/00033/00034/00035/00036 at coordinates H 1 through H 8 to reflect a sump volume of 30 gallons and a depth of 12 inches
- Change off sheet connector descriptions of various lines
- Revised and added new notes
- Revised various off-sheet connector descriptions
- Revised various seismic designators

The following is a list of outstanding change documents that have not been incorporated into this modification:

24590-LAW-M6PN-RLD-00003 against source P&ID 24590-LAW-M6-RLD-00002, Rev. 5.

WAC 173-303-830 Modification Class: <sup>1 2</sup>	Class 1	Class <sup>1</sup> 1	Class 2	Class 3
Please mark the Modification Class:		X		
Enter Relevant WAC 173-303-830, Appendix I Modification citation number:				
Enter wording of WAC 173-303-830, Appendix I Modification citation:				
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (state reason for denial)		Reviewed by Ecology:		
Reason for denial:		 10/15/07 B. Becker-Khaleel Date		

<sup>1</sup> Class 1 modifications requiring prior Agency approval.

<sup>2</sup> If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class '1, if applicable.